

What is claimed is:

1. A method for opportunistic downloading of accumulated data from a personal digital apparatus to a download device, the method comprising the steps of:

5 determining a download time to download the accumulated data;

polling for the download device at the download time;

if the polling is unsuccessful at the download time, polling for the download device at an updated download time;

10 if the polling at the updated download time is successful, performing subsequent polling operations at the updated download time; and

if the polling at the updated download time is successful, downloading the accumulated data to the download device.

15 2. The method of claim 1 and further including the step of determining if the successfully polled download device is a predetermined desired download device.

20 3. The method of claim 1 wherein the personal digital apparatus is a wristwatch-type device comprising data collection sensors and the download device is a printer.

4. The method of claim 1 wherein the personal digital apparatus and the download device comprise low-power transceivers that are Bluetooth-compliant.

25 5. The method of claim 1 and further including the steps of:

coupling the download device to a network; and

transmitting the accumulated data over the network to a network server.

30 6. The method of claim 5 and further including the step of retrieving and printing a document relevant to the accumulated data.

7. A method for opportunistic downloading of accumulated data from a wristwatch-type electronic apparatus to a printer, both the electronic apparatus and the printer having low-power transceivers that are Bluetooth compliant, the electronic apparatus comprising at least one sensor that collects the accumulated data, the method comprising the steps of:

determining a download time to download the accumulated data to the printer such that the download time is substantially equal to a time during which the electronic apparatus is within range of the printer;

polling for the printer at the download time;

if the polling is unsuccessful at the download time, polling for the printer at an updated download time;

if the polling at the updated download time is successful, performing subsequent polling operations at the updated download time; and

if the polling at the updated download time is successful, downloading the accumulated data to the printer.

8. The method of claim 7 wherein the printer is web-enabled and is capable of performing the steps:

retrieving a document from the web in response to the accumulated data; and

printing the document.

9. The method of claim 7 and further including the step of if the polling operation is unsuccessful a plurality of consecutive times, requesting user interaction to set the updated download time.

10. The method of claim 9 wherein the user interaction comprises an indication on a display of the electronic apparatus.

11. The method of claim 7 wherein the step of requesting user interaction comprises the step of requesting the user to indicate to the wristwatch-type electronic apparatus when it is within download range of the printer.

12. A method for opportunistic downloading of accumulated data from a wristwatch-type electronic apparatus to a computer, both the electronic apparatus and the computer having low-power transceivers that are Bluetooth compliant, the electronic apparatus comprising at least one sensor that collects the accumulated data, the method comprising the steps of:

determining a download time to download the accumulated data to the computer such that the download time is substantially equal to a time during which the electronic apparatus is within range of the computer;

polling for the computer at the download time;

if the polling is unsuccessful at the download time, polling for the computer at an updated download time;

if the polling at the updated download time is successful, performing subsequent polling operations at the updated download time; and

if the polling at the updated download time is successful, downloading the accumulated data to the computer.

13. The method of claim 12 and further including the step of the computer generating graphics in response to the downloaded accumulated data.

14. The method of claim 12 and further including the step of the computer archiving the downloaded accumulated data on a drive.

15. The method of claim 12 and further including the step of the computer transmitting the downloaded accumulated data over a network to a server.

16. A method for opportunistic downloading of accumulated data from a wristwatch-type electronic apparatus to a printer, the electronic apparatus comprising a Bluetooth-compliant transmitter and at least one sensor that collects the accumulated data, the printer comprising a Bluetooth-compliant receiver, the method comprising the steps of:

determining a download time to download the accumulated data to the printer such that the download time is substantially equal to a time during which the electronic apparatus is within range of the printer;

polling for the printer at the download time;

5 if the polling is unsuccessful at the download time, polling for the printer at an updated download time;

if the polling at the updated download time is successful, performing subsequent polling operations at the updated download time; and

10 if the polling at the updated download time is successful, downloading the accumulated data to the printer.

17. A method for opportunistic downloading of accumulated data from a personal digital apparatus to a download device, both the personal digital apparatus and the download device having transceivers that are Bluetooth compliant, the
15 personal digital apparatus comprising at least one sensor that collects the accumulated data, the method comprising the steps of:

determining a download time to download the accumulated data to the download device such that the download time is substantially equal to a time during which the personal digital apparatus is within range of the download device;

20 polling for the personal digital apparatus at the download time;

if the polling is unsuccessful at the download time, polling for the personal digital apparatus at an updated download time;

if the polling at the updated download time is successful, performing subsequent polling operations at the updated download time; and

25 if the polling at the updated download time is successful, downloading the accumulated data to the printer.

18. A system for opportunistic downloading of accumulated data comprising:

30 means for determining a download time to download the accumulated data;

means for polling for the download device at the download time;

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means for determining an updated download time in response to an unsuccessful polling; and

means for downloading the accumulated data to the download device.

5 19. A printer that receives opportunistic downloading of data from a personal digital apparatus comprising at least one sensor that accumulates the data, the printer comprising:

a transmitter that polls for the personal digital apparatus at a polling time; and

10 a controller, coupled to the transmitter, that generates polling operation and the polling time, the controller comprising means for determining if the polling operation is unsuccessful at the polling time and generating an updated polling time in response to a predetermined number of polling operation failures.

15 20. The printer of claim 19 wherein the transmitter is Bluetooth-compliant.

21. The printer of claim 19 and further including a Bluetooth-compliant receiver.

20 22. A personal digital apparatus that performs opportunistic downloading of data to a download device, the personal digital apparatus comprising:

at least one sensor that accumulates data;

memory that stores the accumulated data;

a transmitter that transmits the accumulated data;

25 a controller coupled to the at least one sensor, the memory, and the transmitter, the controller comprising means for generating a polling operation and the polling time, the controller comprising additional means for determining if the polling operation is unsuccessful at the polling time and generating an updated polling time in response to a predetermined number of polling operation failures.

30 23. The personal digital apparatus of claim 22 wherein the transmitter is Bluetooth-compliant.

24. The personal digital apparatus of claim 22 and further including a Bluetooth-compliant receiver coupled to the controller.

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